

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, in the application:

Listing of Claims:

1. (currently amended) ~~A in a network including a router and an optical cross-connect system (OXC), a method for responding to a failure, the method comprising:~~

providing an optical cross-connect system (OXC) having a working port and a spare port;

providing a router having a working port to transmit or receive high priority data to or from the working port of the OXC and a protection port to transmit or receive low priority data to or from the spare port of the OXC;

detecting a the failure in the router;

sending a signal from an input protection port of the router to the OXC,
where the signal indicates the failure;

causing the an input working port of the OXC to connect to the input protection port of the router in response to detection of the signal,

where the transmission of low priority data to or from the router is preempted by the transmission of the high priority data to or from the router, in response to the failure of the router; and

transmitting the high priority data from the router to the OXC via the input protection port.

2. (currently amended) The method of claim 1, where the sending further comprises:

sending the signal_i as an in-band signal_i to the OXC.

3. (previously presented) The method of claim 2, where the sending an in-band signal to the OXC further comprises:

sending a Synchronous Optical Network (SONET) signal to the OXC.

4. (currently amended) The method of claim 1, where the sending further comprises:

sending the signal_i as an out-of-band signal_i to the OXC.

5. (previously presented) The method of claim 4, where the sending an out-of-band signal comprises:

addressing the out-of-band signal to an Internet Protocol address associated with the OXC.

6. (currently amended) A method ~~for responding to a failure in a network including a router and an optical cross-connect system (OXC),~~ the method comprising:

providing an optical cross-connect system (OXC) having a working port and a spare port;

providing a router having a working port to transmit or receive high priority data to or from the working port of the OXC and a protection port to transmit or receive low priority data to or from the spare port of the OXC;

receiving a signal at the OXC from ~~an input protection port~~ of the router, the signal indicating a failure of a working port in the router; ~~and~~

connecting the ~~input~~ protection port of the router to ~~the an input~~ working port of the OXC in response to receiving the signal where the transmission of low priority data to or from the router is preempted by the transmission of the high priority data to or from the router, in response to the failure of the router; and

transmitting the high priority data from the router to the OXC via the ~~input~~ protection port.

7. (currently amended) The method of claim 6, where the receiving further comprises:

receiving an in-band signal, from the ~~input~~ protection port of the router, at the OXC.

8. (previously presented) The method of claim 7, where the receiving an in-band signal at the OXC comprises:

receiving a Synchronous Optical Network (SONET) signal at the OXC.

9. (previously presented) The method of claim 6, where the receiving further comprises:

receiving an out-of-band signal at the OXC.

10. (previously presented) The method of claim 9, where the receiving an out-of-band signal further comprises:

addressing the out-of-band signal to an Internet Protocol address associated with the OXC.

11. (previously presented) An optical cross-connect system comprising:
a spare port to transmit low priority data to or from a router; and
a working port to transmit high priority data to or from a primary router,
where the working port is connected to the router in response to a failure of the primary router, and where the transmission of low priority data to or from the router is preempted by the transmission of the high priority data to or from the router, in response to the failure of the primary router.

12. (previously presented) The optical cross-connection system of claim 11, where the working port is connected to the router in response to receiving an in-band signal from the router.

13. (previously presented) The optical cross connection system of claim 12, where the working port is connected to the router in response to receiving a Synchronous Optical Network (SONET) signal from the router.

14. (previously presented) The optical cross-connection system of claim 11, where the working port is connected to the router in response to receiving an out-of-band signal from the router.

15. (currently amended) A communications network for transmitting data, the ~~communications~~ communications network comprising:

an optical cross-connect system (OXC) having a working port and a spare port; and

a router for receiving the data from a terminal, the router comprising:

a an input working port to transmit or receive high priority data to or from the working port of the OXC ~~receive the data from the terminal;~~ and

an input protection port to transmit or receive low priority data to or from the input spare port of the OXC, ~~where receive the data from the terminal in response to a failure of the input working port; and~~

upon detection of a failure of the working port of the router, the input protection port of the router connects to the spare port of the OXC and the transmission of low priority data between the router and the OXC, via the input protection port and the spare port, is preempted by the transmission of high priority data ~~an optical cross-connect system (OXC) to receive the data from the router, the OXC system comprising an input working port, where the input working port of the OXC is connected to the input protection port of the router in response to a signal, indicating the failure of the input working port of the router, and received from the input protection port of the router.~~

16. (currently amended) The communications network of claim 15, where the router transmits a signal indicating the failure to the OXC, the signal causing the OXC to connect the input protection port directly to the ~~input~~ working port of the OXC.

17. (previously presented) The communications network of claim 16, where the signal is an in-band signal.

18. (previously presented) The communications network of claim 17, where the in-band signal is a Synchronous Optical Network (SONET) signal.

19. (previously presented) The communications network of claim 16, where the signal is an out-of-band signal.

20. (previously presented) The communications network of claim 19, where the out-of-band signal is addressed to an Internet Protocol address associated with the OXC.